The Decision to Move House and Aggregate Housing-Market Dynamics

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We present new evidence that changes in the average time between homeowners' moves are crucial for explaining housing-market dynamics. It is well known that there is considerable variation over time in housing transactions. What is less well understood is that these fluctuations are overwhelmingly driven by changes in the duration of time between homeowners' moves rather than by changes in how long it takes to sell houses once they are on the market. We calculate moving rates for homeowners (inversely related to the average time between moves) and selling rates for houses on the market (inversely related to the average time taken to sell a house). Both rates vary considerably over time, but changes in the moving rate account for almost all of the changes in transactions.

What lies behind this finding is that the average time between moves (more than a decade) is around 30 times longer than the average time taken to sell a house (a few months), implying that the stock of houses on the market is typically 30 times smaller than the stock of all houses. This means that an increase in the selling rate quickly depletes the stock on the market and has little lasting impact on transactions. On the other hand, even a small change in the number of houses put up for sale has a disproportionate impact on the stock for sale, and the numbers of houses subsequently sold.

To understand why the moving rate changes over time, we apply search theory to the decision to move house. Existing research has focused on the determinants of the selling rate for houses already on the market, treating the moving rate as an unexplained and fixed number. This, however, is problematic when the moving rate turns out to be the much more important of the two rates in understanding overall housing-market dynamics. Search theory provides a guide to how what is considered a 'good enough' match between a homeowner and a particular house is influenced by market conditions, interest rates, incomes, and the costs associated with moving house. Changes in the average time homeowners live in the same house can then be understood through the lens of changes in what match quality is good enough.

Our approach is to think about moving house as an investment in improving match quality. Moving is best thought of as an investment because of its large upfront costs coupled with the expectation of long-lasting gains. As such, moving is influenced by factors that are common to many investment decisions, such as interest rates, taxes, and the size of the upfront costs themselves. These factors influence the threshold for acceptable match quality and thus the number of homeowners whose current match quality falls below the acceptable minimum. While the moving decision for an individual homeowner is typically driven by a particular change in circumstances that worsens current match quality, at the level of the whole housing market what matters is changes in the match quality threshold for the marginal homeowner who is contemplating moving.

We apply our model to study the housing-market boom in United States between 1995 and 2004. We show that developments during this period such as the fall in mortgage interest rates, the spread of internet-based property search, and the rise of incomes owing to the productivity boom all provided incentives for homeowners to upgrade match quality by moving more frequently. Quantitatively, these factors alone can account for substantial fraction of the increase in transactions, house prices, and listings during that period.